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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/648,164	08/25/2000	Yih-Feng Chyan	15-6-9	6246

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AGERE SYSTEMS INC.

4 Connell Drive

Room 4U-533C

Berkeley Heights, NJ 07922-2747

EXAMINER

DICKEY, THOMAS L

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/648,164

Applicant(s)

CHYAN ET AL.

Examiner

Thomas L Dickey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-19 is/are allowed.
- 6) ☒ Claim(s) 1-4, 9, 10, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 5-8, 11 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's preliminary amendment filed on 08/25/2003 has been entered.

Drawings

2. The formal drawings filed on 07/10/2002 are acceptable.

Oath/Declaration

3. The oath/declaration filed on 01/29/01 is acceptable.

Priority

4. Applicants have made no claim for priority.

Information Disclosure Statement

5. If applicants are aware of any relevant prior art, he/she requested to cite it on form **PTO-1449** in accordance with the guidelines set forth in M.P.E.P. 609.

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Specification

6. The disclosure is objected to because of the following informalities:

A. On page 3 line 20 Applicants refer to "U.S. Serial number 290533." This reference misidentifies application number 09/335,646 filed 6/18/99, and must be corrected. The correction should take the form of instructions such as:

On page 3 line 20 of the originally filed specification, replace "U.S. Serial number 290533" with – U.S. Serial number 09/335,646 filed 6/18/99, now abandoned–

B. On page 3 line 26 Applicants refer to "U.S. Serial number 341,190." This reference misidentifies application number 09/528,753 filed 03/20/2000, and must be corrected. The correction should take the form of instructions such as:

On page 3 line 20 of the originally filed specification, replace "U.S. Serial number 290533" with – U.S. Serial number 09/528,753 filed 03/20/2000, now U.S. Patent Number 6,518,622 –

C. The abstract of the disclosure is objected to because: The abstract exceeds 250 words in length, the abstract does not concisely point out the invention claimed, and the abstract is not clearly indicative of the invention to which the claims are directed.

D. With regard to each of the objections specified above, appropriate correction is required. Applicant filed an amendment on 7/10/02 attempting to correct these minor errors but for various technical reasons (misidentifying the precise page and line of the originally filed specification where the corrections should be placed, and failure to supply a "clean copy" of the amended abstract alone on a single page), applicant's amendments were not entered in the record.

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Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-4,9,10,13, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by AUGUSTO (6,630,710).

Augusto discloses an integrated circuit structure comprising a semiconductor layer 126-128 having a major surface formed along a plane, first 108 (the right-most of the two n-type source/drain regions 108, the one connected to region 109 by conductive layer 112, is referred to here) and second 109 (left-most of the two p-type 109 regions) spaced-apart doped regions extending into the surface from the plane, a monocrystalline third doped region 132 of different conductivity type than the first doped region 108, positioned above the plane and over the first doped region 108; and a conductive layer (comprising TiSi_2 or TiN , which are examples of the list tungsten silicide, tungsten nitride, titanium silicide, titanium nitride, and cobalt silicide, specified in claim 9, note particularly column 14 lines 11-15) formed between the first 108 and second 109 spaced-apart doped regions and above the plane, formed as a continuous film extending from the first doped region 108 to the second doped re-

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gion 109 providing electrical connection between the doped regions and physically contacting the first doped region 108 and the second doped region 109, wherein the first doped region 108 is a first source/drain region of a first MOSFET, the second doped region 109 is a portion of a transistor, specifically a second source/drain region associated with a second MOSFET, and the third doped region 132 is a channel region of the first MOSFET, wherein said structure further comprising a channel region (also marked 132 in the figure, it is the channel 132 of the right or p-channel side MOSFET) of the second MOSFET aligned with the second source/drain region, and the diffusion regions 108-108 (left or n-channel side) and 109-109 (right or p-channel side) are configured to form an inverter circuit. Note figures 29-42 and column 14 lines 11-15 of Augusto.

Allowable Subject Matter

9. Claims 15-18 are allowed over the references of record because none of these references disclosed or can be combined to yield the claimed invention such as a semiconductor device comprising a first layer of semiconductor material; a first field effect transistor having a first source/drain region formed in the first layer, a channel region formed over the first layer and a second source/drain region formed over the channel region; a second field effect transistor having a first source/drain region formed in the first layer, a channel region formed over the first layer and a second source/drain region formed over the channel region; and a conductive layer in a plane extending between the first layer and the first field effect transistor channel region, said conductive layer comprising a metal positioned between the first

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source/drain region of each transistor to conduct current from one first source/drain region to the other first source/drain region, as recited in claim 15.

Claim 19 is allowed over the references of record because none of these references disclosed or can be combined to yield the claimed invention such as a semiconductor device comprising: a first layer of semiconductor material; a first field effect transistor having a first source/drain region formed in the first layer, a channel region formed over the first layer and a second source/drain region formed over the channel region; a second field effect transistor having a first source/drain region formed in the first layer, a channel region formed over the first layer and a second source/drain region formed over the channel region; and a conductive layer comprising a metal positioned between the first source/drain region of each transistor to conduct current from one first source/drain region to the other first source/drain region, wherein the conductive layer comprises a metal silicide.

Claims 5-8, 11, and 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments with respect to claims 1-4, 9, 10, 13, and 14 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas L Dickey whose telephone number is 703-308-0980. The examiner can normally be reached on Mon-Thu 8-6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas L Dickey whose telephone number is 703-308-0980. The examiner can normally be reached on Tues-Friday 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TLD
10/2003


Minhloan Tran
Primary Examiner
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